



## Purpose

To evaluate the effectiveness of an educational session to educate nurses on evidence-based nursing interventions that can be utilized to prevent psychological distress in ICU patients and improve patient outcomes.

## Objectives

- Nurses will describe signs of ICU patient distress through the completion of case studies by the end of the session.
- Nurses will demonstrate three reasons why preventing ICU distress is important by the end of the program through peer discussion.
- Nurses will communicate five different ways to prevent ICU distress through lecture by the end of the program.

## Evaluation Methods

- The effectiveness of session was measured by a pre-test given to nurses before the educational offering and a post-test that was given after.
- The pre-test established SICU nurse's attitudes and previous experiences with ICU patients in psychological distress.
- The post-test assessed if nurses met the SMART objectives of the educational session and changed their attitudes on psychological distress in ICU patients.
- An evaluation survey utilized open ended and Likert scale questions to determine if SICU nurses believed the educational session was beneficial to their nursing practice.

### Pre-Test/Post-Test Questions

#### 1. Which of the following could be a sign of acute anxiety in an ICU patient?

- a. Hypotension
- b. Tachycardia
- c. Unintentional weight loss or gain
- d. Feelings of hopelessness

#### 2. Why is preventing distress in ICU patients important? Select all that apply.

- a. Increase in stress delays wound healing
- b. Patients may harm themselves if agitated
- c. Poor sleeping patterns may develop in distressed patients
- d. Patients may develop long-term impaired cognitive function
- e. Distressed patients hit their call button more causing more work for nurses
- e. Utilizing verbal communication only

Figure 1  
Pre-Test/Post-Test Questions

#### 3. What is the appropriate term for psychological disorders that develop after an ICU admission?

- a. Long-term ICU Distress Disorder
- b. Hospital Induced Anxiety Syndrome
- c. Post-Intensive Care Syndrome
- d. Post-Hospital Psychological Disorder

#### 4. What is not risk factor for a patient developing PTSD after an ICU admission?

- a. Diagnosis of a cardiac disease
- b. Delirium
- c. Prolonged intubation
- d. Diagnosis of an inflammatory disease

#### 5. What nursing interventions can be used to prevent distress in ICU patients. Select all that apply.

- a. Music therapy
- b. Increased stimulation
- c. Aromatherapy
- d. Deep breathing exercises

## Background

- Patients that are admitted to the intensive care unit experience a stressful environment which can lead them to develop detrimental psychological distress.
- ICU patients often experience increased pain, invasive procedures, and excess noise levels (Treggiari-Venzi, et al., 1996).
- ICU nurses stated that they did not receive proper training on what psychological distress looks like and how to address those signs of distress (Price, 2004).
- With effective education, ICU nurses can become more knowledgeable in treating the needs of psychological distress and identifying what that distress looks like in their patient population.
- Short-term effects of distress can lead to slower wound healing, increased risk of viral infections, increased risk of heart attacks and even an increased risk of death (Gustad, Chaboyer, & Wallis, 2008).
- Post-ICU patients experience physical weakness, fatigue, memory problems and cognitive processing problems (Deacon, 2012).
- Nursing interventions that can prevent psychological distress include music therapy, muscle relaxation, sleep promotion and therapeutic communication.

## Theory

### Bandura's Social Learning Theory

- When learners observe a behavior, they retain that behavior and then model it when motivated to do so (Rutherford-Hemming, 2012).
- Personal factors, environmental factors and behavioral factors can all be applied when determining how a learner will behave when modeling (Johns Hopkins, 2016).
- Teaching strategies that allowed students to interact and model each other was applied to this educational offering.

### Lewin's Change Theory

- The first step in this theory is to unfreeze behaviors in order to assess the primary problem and allow acceptance for the new change to occur (Chung & Nguyen, 2005).
- The second step in Lewin's change theory is to provide education and tools needed to successfully implement the new change so that staff recognize that a change is needed (Chung & Nguyen, 2005).
- The third step in this change theory is refreezing which motivates staff to accept this new change in their practice and create a new culture (Chung & Nguyen, 2005).
- By having nurses attend the educational offering, they gained new knowledge and skills to start applying this change to their practice when they have an ICU patient in psychological distress.

## Methods/Project Description

- PowerPoint presentation, including discussion questions and case studies, were presented to 56 nurses during educational sessions.
- Learning activities used in the educational session included a PowerPoint lecture, a video on Post-Intensive Care Syndrome (PICS), peer-to peer discussion and two case studies.
- Presentation focused on defining psychological distress and prevention using nursing interventions.
- Barriers/challenges, nursing educational concepts and stakeholders considered during implementation.
- Ethical considerations were discussed with SICU Nurse Manager.
- Pre-test taken before presentation with post-test taken immediately afterwards, along with survey.

## Results/Outcomes

- 100% of nurses stated that they would use the nursing interventions described in the educational session.
- Question one of the pre-test provided 91% correct responses and 8% incorrect responses. For the post-test, 100% of the responses were correct for question one.
- Question two of the pre-test provided 54% correct responses and 46% incorrect responses. In comparison, question two of the post-test provided 95% correct responses and 5% incorrect responses.
- Question three of the pre-test, there were 41% correct responses and 59% incorrect responses. Question three of the post-test yielded 96% correct responses and 4% incorrect responses.
- Question four of the pre-test provided 43% correct responses and 57% incorrect responses. For question four of the post-test, there were 96% correct responses and 4% incorrect responses.
- Question five of the pre-test, there were 86% correct responses and 14% incorrect responses. Question five of the post-test yielded 95% correct responses and 5% incorrect responses.

### Educational Offering Survey

On a scale of 1 to 10, how effective do you believe this education was in providing you with education on distress in ICU patients?

On a scale of 1 to 10, how much did you enjoy the learning activities (case-study, group discussion, role-playing activity)?

Would you use any of the nursing interventions discussed to prevent distress? Why or why not?

Do you have any recommendations on how to improve this educational offering?

Do you have any additional questions or comments?

Figure 2  
Educational Offering Survey

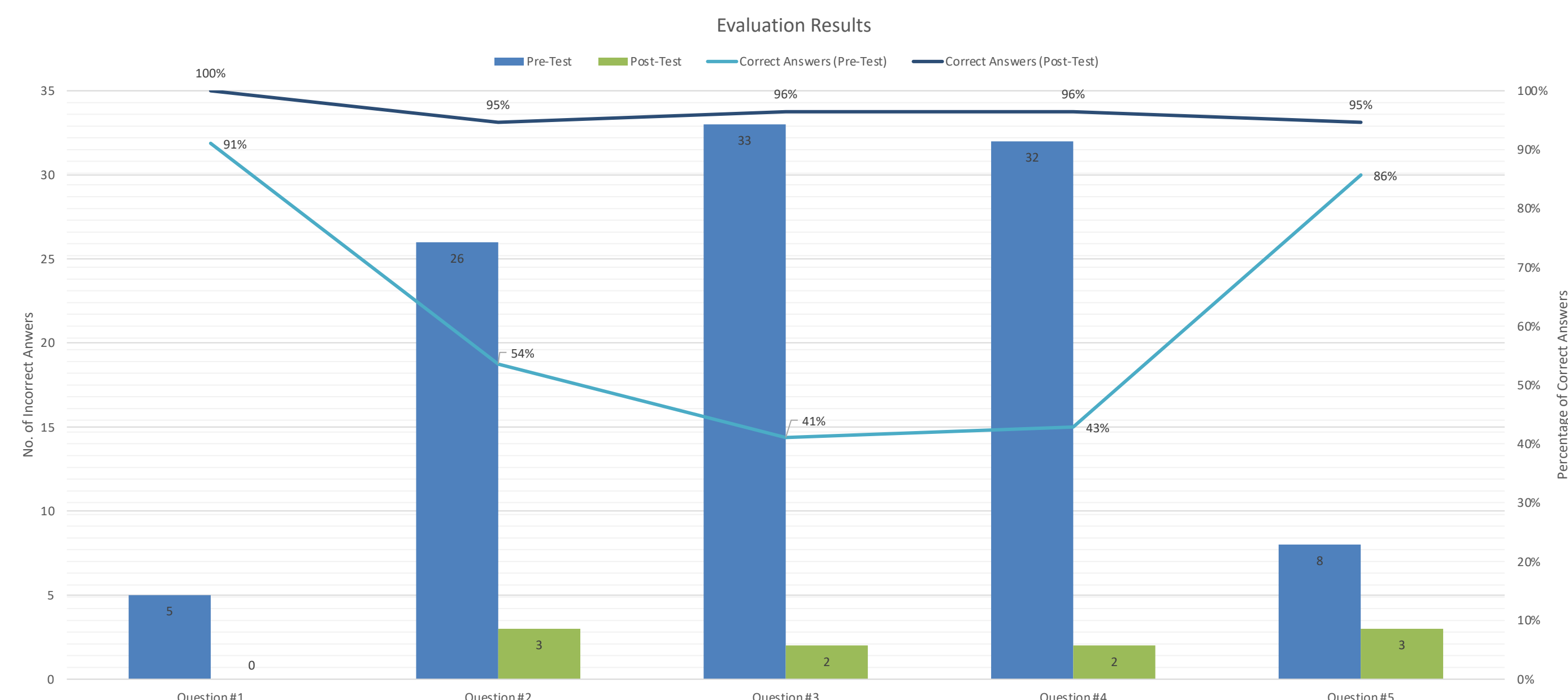


Table 1

Pre-Test and Post-Test  
Numbers with Evaluations

## Conclusion

- The educational offering on psychological distress in ICU patients was both beneficial and effective to SICU nurses.
- Nurses met SMART goals as evidenced by scores from the post-test showing a dramatic improvement compared to the results from the pre-test.
- All fifty-six nurses stated that they would utilize the nursing interventions presented in this educational session, proving the offering was beneficial.
- By giving SICU nurses interventions to prevent psychological distress in their patients, quality nursing care will improve and lead to better patient outcomes.

## Implications/Recommendations

- Moving forward, more research must be done for this educational session to be incorporated into nursing orientation or UCMC's critical care nurse residency program.
- This research may include a study of Press Ganey scores related to patient experience in the SICU and interviews of past SICU patients to gain qualitative data on the improvement of patient's mental health after the educational session was implemented.
- SICU nursing leadership should continue to promote nursing interventions to prevent psychological distress in their patients.
- Limitations in the implementation of educational sessions were seen with COVID-19 protocols at UCMC.

